

REMARKS

In the Office Action dated August 28, 2008, claims 15-32 were presented for examination. Claims 15-32 objected to as containing an informality with respect to “hierarchical node.” Claims 15-32 were rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 15, 21, and 27 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 15-32 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 15-32 were rejected under 35 U.S.C. §102(a) as being anticipated by Applicant’s Admitted Prior Art (AAPA).

The following remarks are provided in support of the pending claims and responsive to the Office Action of March 19, 2008 for the pending application.

I. Objection to the Claims

In the Office Action dated August 28, 2008, claims 15-32 were objected to as containing an informality. More specifically, the Examiner objected to the term “hierarchical node” and has requested that this term “should be replaced with a node pertaining to a particular level.” See Office Action page 3. In the prior Response submitted by Applicant, Applicant amended the recitation of “hierarchical node” to refer to the next higher level in the tree structure, as the claimed invention pertains to promotion of items organized in a tree structure. Accordingly, Applicant respectfully requests that the Examiner remove the objection to the claims based upon the prior amendment to the claims.

II. Rejection Under 35 U.S.C. §101

In the Office Action dated August 28, 2008, the Examiner assigned to the application rejected claims 15-32 under 35 U.S.C. §101, as being directed to non-statutory subject matter. More specifically, the Examiner indicated that “independent claims 15, 21 and 27 do not involve transformation of article or physical object to a different state or thing, they merely recite

processing data items.”¹ In the prior Response, Applicant amended each of claims 15, 21, and 27 to recite that the merged data items form a single output stream. It is Applicant’s understanding that an output stream is a concrete and useful item. Applicant respectfully disagrees with the Examiner’s subjective statement that the output stream is not statutory subject matter. It is the single output stream formed by the merge of multiple input stream that is a tangible and concrete result. Accordingly, Applicant respectfully requests that the Examiner reconsider this rejection and remove the rejection of claims 15-32 under 35 U.S.C. §101.

III. Rejection of Claims 15, 21, and 27 under 35 U.S.C. §112, first and second paragraphs

In the Office Action dated August 28, 2008, the Examiner assigned to the application rejected claims 15, 21, and 27 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement and as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

More specifically, the Examiner has raised an issue with the phrase pertaining to promoting data items as not properly described in the specification. Applicant respectfully disagrees with the Examiner with respect to this rejection. In the prior Response, Applicant cited numerous locations for support in the specification for each of the amendments submitted. Additionally, support for the promotion of data items through the nodes of the binary tree is found in the Abstract and paragraphs 0024, 0037, 0043, 0044, 0045, 0046, 0049, and 0050 of Applicant’s publication. It is Applicant’s position that the specification clearly complies with the written description requirement pertaining to the promotion of data items through the hierarchical levels of the binary tree, as claimed. “The examiner has the initial burden of presenting evidence or reasoning to explain why persons skilled in the art would not recognize in the original disclosure a description of the invention defined by the claims.”² The Examiner cannot merely

¹See Office Action dated January 18, 2007, Page 2.

²MPEP §2163, citing *Wertheim*, 541 F.2d at 263, 191 USPQ at 97.

assert in a blanket statement that the claims fail to comply with the written description requirement. “A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption.”³ It is Applicant’s position that the Examiner has not produced any such evidence of reasoning. Applicant respectfully disagrees with the Examiners rejection of these claims as failing to comply with the written description requirement. Furthermore, the Examiner has not produced any evidence to support their position. Accordingly, Applicant respectfully requests that the Examiner remove the rejection of claims 15, 21, and 27 under 35 U.S.C. §112, first paragraph, and grant allowance thereof.

With respect to the rejection under 35 U.S.C. §112, second paragraph, Applicant respectfully objects to the Examiner’s position that the claimed elements of promotion with use of the status identifiers is indefinite. Applicant has both set forth the subject matter of the invention and has defined the metes and bound of the subject matter.⁴ In fact, the claims are specific that each data item has an associated identifier, these identifiers are compared, and based upon the comparison, data items may be moved to a next level in the binary tree structure. Applicant respectfully disagrees with the Examiner, and the subjective nature of this rejection. Accordingly, Applicant requests removal of the rejection of claims 15-32 under 35 U.S.C. §112, second paragraph, and respectfully requests that the Examiner direct allowance thereof.

IV. Rejection of claims 15-32 under 35 U.S.C. §102(b)

In the Office Action dated August 28, 2008, the Examiner assigned to the application rejected claims 15-32 under 35 U.S.C. §102(a) as being anticipated by Applicant’s Admitted Prior Art (*AAPA*).

AAPA teaches a method for forming an output stream based upon picking a winner at

³MPEP §2163, citing *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971).

⁴See MPEP §2171.

each level by comparing the key value of the current candidate to the sort-key value of the prior loser, and only swaps them if the prior loser has a lower key value than the current candidate. For equal or “duplicate” key values, **after the key comparison** the swap can be omitted since conceptually it doesn’t matter which one of the duplicate data items is output. See [0005] of the Applicant’s specification.

In contrast, Applicant claims omitting a comparison of node identifiers at a node when a loser was a duplicate of a prior winner at that level. Due to the nature of replacement selection, any comparison at a selection tree node implies that the prior overall winner came from the same subtree. Thus, considering a comparison with a loser that is marked as a duplicate, one can be sure that loser’s key value is the **same** as that of the prior overall winner. As result, the key comparison at a node, marked as a duplicate, can be omitted together with all the key comparisons above it in the hierarchy of the binary tree. Subsequently, the prior duplicate loser, that is a **duplicate of the prior overall winner**, is promoted to be the next overall winner **on the basis of a comparison between the status indicators without requiring the key comparison**, reducing processing time and thereby increasing performance of the replacement selection algorithm as improved by this invention. See [0024] and [0048] of the Applicant’s specification.

Conversely, under the same or similar circumstance in the *AAPA*, a key comparison is required. More specifically, *AAPA* refers to omitting a swap of key values after their comparison, while the method claimed by the Applicant refers to omitting comparison of key values under predetermined circumstances. As demonstrated, the prior art does not teach the omission of a node identifier comparison in the manner claimed by Applicant. It is Applicant’s position that the Examiner is improperly citing *AAPA*. Applicant’s claimed omission refers directly to omission of the comparison itself under limited circumstances. The omission of *AAPA* and the omission claimed by Applicant are directed to two different omissions and are not comparable or equivalent.

Since *AAPA* does not teach all of the limitations set forth in Applicant’s amended claims,

it is Applicant's position that the rejection under AAPA should be removed. Accordingly, Applicant respectfully requests removal of the rejection of the pending claims under 35 U.S.C. §102(a), and that the Examiner direct allowance of claims 15-32.

V. Conclusion

Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. Accordingly, Applicant requests that the Examiner indicate allowability of claims 15-32, and that the application pass to issue. If the Examiner believes, for any reason, that personal communication will expedite prosecution of the application, the Examiner is hereby invited to telephone the undersigned at the number provided.

Respectfully submitted,

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